



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,145	11/26/2003	Dattatreya Ramesh Panse	3876	9236
22474	7590	12/19/2005	EXAMINER	
DOUGHERTY CLEMENTS 1901 ROXBOROUGH ROAD SUITE 300 CHARLOTTE, NC 28211			SALVATORE, LYNDIA	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

Claim Objections

1. Claims 7 and 21 are objected to because of the following informalities: Claims 7 and 21 are objected to because Applicant abbreviates the uretdione dimmers rather than reciting the chemical name (e.g., IUPAC name).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2,16 and 36 recite the limitation "heating panels" in line 2. There is insufficient antecedent basis for this limitation in the claim.

4. Claim 4 recites the limitation "thermoplastic resin" in line 2. There is insufficient antecedent basis for this limitation in the claim. For purposes of examination claim 4 will be treated as if it depends from claim 1.

5. Claim 5 recites the limitation "thermoplastic polyurethane with pendant hydroxyl groups" in line 2. There is insufficient antecedent basis for this limitation in the claim. For purposes of examination claim 5 will be treated as if it depends from claim 3.

6. Claim 6 recites the limitation "the uretdione is a dimmer of diisocyanate, a multi-uretdione adduct or a combination thereof" in line 2. There is insufficient antecedent basis for this limitation in the claim. For purposes of examination claim 6 will be treated as if it depends from claim 1.

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1-39 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 and 45-49 of copending Application No. 10/739361. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instantly sought subject matter is fully encompassed by 10/739361.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1771

10. Claims 15-16, 22-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Morikawa et al., 6,309,507.

The patent issued to Morikawa et al., teach a polyisocyanate curing agent adhesive composition comprising a polyurethane base resin, a blocked isocyanate curing agent, and a solvent (Title, column 2,10-40, column 9, 24-40, column 9, 53-60). Morikawa teach employing polyurethane with two pendant hydroxyl groups (column 6, 22-28). Morikawa et al., teach polydiisocyanates or uretidione bond containing polyisocyanates (column 5, 65-column 6, 10). Morikawa et al., teach the claimed uretdione compounds (column 2, 15-40). Morikawa et al., teach the use of carbodiimide (column 2, 32). Morikawa et al., teach that the aromatic diisocyanate may be used singly or admixture of two kinds (column 2, 30-45). As such, the Examiner considers a curing agent mixture comprising a blocked isocyanate such as those set forth above and carbodiimide sufficient to meet the limitation of further providing a hydrolytic stabilizer. In other words, the Examiner considers carbodiimide sufficient to meet the limitation of hydrolytic stabilizer. Morikawa et al., teach various suitable solvents such the claimed ketones, ethers, and esters (column 9,24-41). Morikawa et al., teach that the polyurethane curing adhesive is suitable is useful on a variety of substrates including non-woven fabrics (column 9, 60-65).

With specific regard to the manipulative method steps, processing conditions and apparatus recited in claim 16, it is the position of the Examiner that said limitations are not germane to the final product. The presence of process limitations on product claims in which the product does not otherwise patentably distinguish over the prior art, cannot impart patentability to the product. *In re Stephens*, 145 USPQ 656

Although produced by a different process, the claimed product appears to be the same or similar to the product provided by the combination of prior art. As such, the burden shifts to Applicant to come forward with evidence establishing an obvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289,292.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-14, 17-21 and 35-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohya et al., US 4,567,090 in view of Morikawa et al., 6,309,507.

The patent issued to Ohya et al., teach a heat resistant laminate film comprising two adjacent layers of adhesive (column 2, 5-10). The first adhesive layer (B) comprises a polyolefin resin modified by acid and the second adhesive layer (C) is a thermoplastic polyurethane adhesive agent (Column 2, 10-15). Said laminate is formed by coextrusion (column 4, 23-30). Said laminate is suitable for use in food packaging (column 1, 15-20). Ohya et al., teach that the heat resistant film laminate exhibits excellent gas-barrier and adhesive properties and the capability of enduring retort treatment at high temperatures.

Ohya et al., fail to teach the claimed adhesive composition, however, the patent issued to Morikawa et al., teach a polyisocyanate curing agent adhesive composition comprising a polyurethane base resin, a blocked isocyanate curing agent, and a solvent (Title, column 2, 10-40, column 9, 24-40, column 9, 53-60). With regard to claim 3, Morikawa teach employing

Art Unit: 1771

polyurethane with two pendant hydroxyl groups (column 6, 22-28). With regard to claim 6, Morikawa et al., teach poly-diisocyanates or uretidione bond containing polyisocyanates (column 5, 65-column 6, 10). With regard to claim 7, Morikawa et al., teach the claimed uretdione compounds (column 2, 15-40). With regard to claims 11-12, Morikawa et al., teach the use of carbodiimide (column 2, 32). Morikawa et al., teach that the aromatic diisocyanate may be used singly or admixture of two kinds (column 2, 30-45). As such, the Examiner considers a curing agent mixture comprising a blocked isocyanate such as those set forth above and carbodiimide sufficient to meet the limitation of further providing a hydrolytic stabilizer. In other words, the Examiner considers carbodiimide sufficient to meet the limitation of hydrolytic stabilizer. With regard to claims 13-14, Morikawa et al., teach adding various additives such those recited (column 9, 10-22). Said adhesive composition is suitable for use in packaging applications (column 1, 10-20). Said adhesive composition can be applied by extrusion lamination (column 10, 25-30). Said adhesive composition exhibits excellent heat resistance and durability (column 1, 45-50).

Therefore, motivated by the desire to provide a heat resistant laminate film with excellent heat resistance and durability, it would have been obvious to one having ordinary skill in the art to form the heat resistant laminate taught by Ohya et al., US 4,567,090 with the polyisocyanate curing agent adhesive composition taught by Morikawa et al.

With regard to the fabric limitation recited in claim 1, Morikawa et al., teach that the polyurethane curing adhesive is suitable is useful on a variety of substrates including non-woven fabrics (column 9, 60-65).

Therefore, motivated by the desire to expand the number of applications of the heat resistant film laminate, it would have been obvious to laminate the heat resistant laminate taught by the combination of Ohya et al., in view of Morikawa et al. to a non-woven fabric as taught by Morikawa et al.

With specific regard to the manipulative method steps, processing conditions and apparatus recited in claims 1,2, 35 and 36, it is the position of the Examiner that said limitations are not germane to the final product. The presence of process limitations on product claims in which the product does not otherwise patentably distinguish over the prior art, cannot impart patentability to the product. *In re Stephens*, 145 USPQ 656

Although produced by a different process, the claimed product appears to be the same or similar to the product provided by the combination of prior art. As such, the burden shifts to Applicant to come forward with evidence establishing an obvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289,292.

With regard to claims 5 and 19-21, the combination of prior art is silent with respect to the degree of crystallinity of the polyurethane resin, however, it is the position of the Examiner that the claimed level of crystallinity is inherent to the polyurethane resin taught by the prior art. Support for said presumption is found in the use of like materials such as polyurethane having hydroxyl groups, which would result in the claimed medium to high level of crystallinity.

With regard to claims 37 and 38, the combination of prior art does not teach the performance of the seams formed after heating, however, it is reasonable to expect that the claimed acceptable seam performance would be present in the heat resistant laminate formed by the combination of prior art. Support for said argument is found in the use of like materials such

Art Unit: 1771

as heat resistant film laminate comprising adhesive polyurethane having pendant hydroxyl groups, polyurethane adhesive and fabric and like processes such as extrusion lamination.

13. Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohya et al., US 4,567,090 in view of Morikawa et al., 6,309,507 as applied to claim 1 above.

The combination of prior art does not specifically teach the claimed hydroxyalkylamide, however, it is the position of the Examiner that it would be obvious to one having ordinary skill in the art to select a known hydroxyalkylamide as the cross-linking enhancer. Furthermore, it appears that the cross-linking enhances recited in claim 24 are functionally equivalent in terms of their suitability for use. As such, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to select a known material on the basis of its suitability for the intended use. *In re Leshin*, 125 USPQ 416

14. Claims 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morikawa et al., 6,309,507 as applied to claim 15 above.

Morikawa et al., does not specifically teach the claimed hydroxyalkylamide, however, it is the position of the Examiner that it would be obvious to one having ordinary skill in the art to select a known hydroxyalkylamide as the cross-linking enhancer. Furthermore, it appears that the cross-linking enhances recited in claim 24 are functionally equivalent in terms of their suitability for use. As such, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select a known material on the basis of its suitability for the intended use.

In re Leshin, 125 USPQ 416

15. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morikawa et al., 6,309,507 as applied to claim 15 above and further in view of JP 406192206 A.

Art Unit: 1771

Morikawa et al., fails to teach the claimed hydrolytic stabilizer, however, the published Japanese abstract teaches the claimed carbodiimide hydrolytic stabilizer (abstract). The published abstract further teaches that the claimed hydrolytic stabilizer protects and stabilizes polyurethane.

Therefore, motivated by the desire to protect the polyurethane adhesive component from degradation and provide stabilization, it would have been obvious to one having ordinary skill in the art at the time the invention was made to formulate the adhesive composition taught by Morikawa et al., with the carbodiimide hydrolytic stabilizer taught by the published Japanese patent abstract.

16. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohya et al., US 4,567,090 in view of Morikawa et al., 6,309,507 as applied to claim 1 above.

The combination of prior art fails to teach the claimed hydrolytic stabilizer, however, the published Japanese abstract teaches the claimed carbodiimide hydrolytic stabilizer (abstract). The published abstract further teaches that the claimed hydrolytic stabilizer protects and stabilizes polyurethane.

Therefore, motivated by the desire to protect the polyurethane adhesive component from degradation and provide stabilization, it would have been obvious to one having ordinary skill in the art at the time the invention was made to formulate the adhesive composition taught by the combination of Ohya et al., in view of Morikawa et al., with the carbodiimide hydrolytic stabilizer taught by the published Japanese patent abstract.

Claim Rejections - 35 USC § 102/103

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claim 39 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Morikawa et al., 6,309,507 as applied to claim 16 above.

With regard to claim 39, Morikawa et al., does not teach the performance of the seams formed after heating, however, it is reasonable to expect that the claimed acceptable seam performance would be inherent to heat resistant laminate formed by Morikawa et al. Support for said argument is found in the use of like materials such as adhesive polyurethane having pendant hydroxyl groups and fabric and like processes such as extrusion lamination, which would result in the claimed acceptable seam performance. The burden is shifted to Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594

In addition, the presently claimed acceptable seam performance would obviously have been present once the Morikawa adhesive is provided. *In re Best*, 195 USPQ 433

Art Unit: 1771

Conclusion

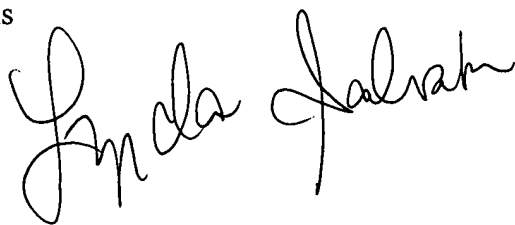
19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M. Salvatore whose telephone number is 571-272-1482. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

December 12, 2005

ls

A handwritten signature in black ink, appearing to read "Lynda Salvatore". The signature is written in a cursive, flowing style.